REMARKS

In the Office action dated November 6, 2003, the Examiner asked applicant to point out any material information from the co-pending applications listed as parents to the instant application if the criteria for materiality applies and if the examination record provides reason for applicant to believe that such information has not been considered by the Examiner. Applicant is uncertain what the Examiner is requesting. Applicant has previously identified the applications and believes that identification satisfies its duty of disclosure. Nevertheless, in an attempt to respond to the request, applicant has attached to the end of this document as "Attachment 1" a list of its patent applications and its one Taiwanese patent (the list does not include the national phase filings of the listed PCT application). None of the listed applications have yet issued as patents. Some if not all of the listed applications refer to sensing blade movement and some if not all of the listed applications incorporate this application by reference. The Examiner is requested to inform applicant if further information concerning any of these applications is needed.

The Examiner objected to claim 1 by saying the use of the term "contact" was unclear. Claim 1 has now been amended to address that informality.

Turning now to the merits of the Office Action, the Examiner rejected claims 1, 8-11 and 16-20 under 35 U.S.C. §102(b) in light of U.S. Patent No. 4,653,189 to Andreasson. Those rejections are traversed.

Andreasson discloses a system used in a chain saw to address kick-back. Kick-back is where the saw is thrown back toward the operator during operation. Andreasson says the rpm of a chain saw motor decreases suddenly when kick-back occurs and the

system in Andreasson watches for that decrease in rpm. When it sees that decrease, the system actuates a chain brake to stop the saw. Specifically, the system charges a capacitor and uses the energy stored by the capacitor to actuate the brake when a sudden decrease in motor rpm is detected. However, the system in Andreasson can energize the capacitor only after the motor of the chain saw achieves a certain rpm. The system cannot energize the capacitor prior to the motor reaching the necessary rpm or if the rpm of the motor falls below the necessary rpm.

Claim 1 in the instant application describes a woodworking machine that is different from the system disclosed in Andreasson. Claim 1 has been amended to require a woodworking machine with "a control system configured to detect a dangerous condition between a person and the blade by imparting an electric signal to the blade and monitoring the electric signal for at least one change indicative of the dangerous condition." Andreasson does not disclose or suggest any system configured to impart an electric signal on a blade or to monitor a signal on the blade for changes indicative of a dangerous condition. Instead, as stated, Andreasson watches for a predetermined decrease in motor rpm and interprets any such decrease as the occurrence of kick-back. This difference distinguishes claim 1 from Andreasson.

Claims 8-11, 16 and 17 have been amended to require a woodworking machine with "a detection system adapted to detect a dangerous condition between a person and the working portion by imparting an electric signal to the working portion and monitoring the electric signal for at least one change indicative of the dangerous condition." As explained above, Andreasson does not disclose or suggest any system configured to impart an electric signal on a working portion of a woodworking machine,

and Andreasson also fails to monitor a signal on tho working portion for a change indicative of a dangerous condition. These differences distinguish claims 8-11, 16 and 17 from Andreasson.

Claim 17 also requires "a reaction system associated with the detection system to cause a predetermined action to take place relative to the working portion upon detection of the dangerous condition during a defined period of time after the motor has been turned off." Requiring a reaction system to cause a predetermined action to take place when a dangerous condition is detected after the motor has been turned off means the user is protected during the time the working portion is coasting to a stop or spinning down. The system disclosed in Andreasson, in contrast, requires the motor to be running at or above a predetermined threshold to charge the capacitor. As stated, the system will not charge the capacitor after the motor has spun down below the predetermined rpm, and if the capacitor is not charged, the system cannot actuate the brake to stop the cutting chain. This difference further distinguishes claim 17 from Andreasson.

Claim 18 requires a woodworking machine with "a detection system adapted to detect ***contact*** between a person and the cutter." The system disclosed by Andreasson, in contrast, does not and cannot detect contact between a person and the cutter. Instead, Andreasson watches for a sudden decrease in the rpm of the motor and interprets any such decrease as kick-back. The Examiner nevertheless says Andreasson anticipates the claim because "'kickback' is an indicator of potential 'contact' between the cutter and the person." But whether kick-back has the potential to cause the saw to contact a person is beside the point because claim 18 requires a

detection system adapted to detect actual contact, not simply the potential for contact. It is clear that kick-back does not necessarily result in contact, just as it is clear that contact can occur for reasons other than kick-back. Thus, reacting to kick-back is different than reacting to contact. In other words, Andreasson does nothing to minimize the severity of an injury resulting from contact caused by something other than kick-back while the machine disclosed in claim 18 does. This is a significant and important distinction that distinguishes the claim from Andreasson.

Claim 19 has been amended to require "a detection system adapted to detect a dangerous condition between a person and the cutting tool by imparting an electric signal to the cutting tool and monitoring the electric signal for at least one change indicative of the dangerous condition." Claim 19 further requires a control system "adapted to trigger the brake system if the dangerous condition is detected during coast-down of the cutting tool after the motor is turned off." These limitations distinguish claim 19 from Andreasson for the reasons explained above.

Claim 20 has been amended to require a "means for detecting a dangerous condition between a person and the working portion by imparting an electric signal to the working portion and monitoring the electric signal for at least one change indicative of the dangerous condition." That limitation differs from the other limitations discussed above because it is worded as a means-plus-function limitation. With that wording, the limitation must be interpreted "to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. §112. Andreasson, however, fails to disclose any structure, material, or acts equivalent to the corresponding structures described in applicant's specification, and therefore,

Andreasson does not disclose the recited means-plus-function limitation. Again, nothing in Andreasson discloses or suggests imparting an electric signal to a working portion of a woodworking machine or monitoring that electric signal for at least one change indicative of a dangerous condition.

The pending claims are not obvious in light of Andreasson because Andreasson fails to teach or suggest the desirability of a machine configured as specified by those claims. The reason to configure a woodworking machine so that it does not trigger a brake or reaction system when a blade or working portion is motionless, as specified in claims 1, 8-11, 16, 18, 20, 22 or 23, is to minimize unnecessary triggering or false trips of the brake or reaction system. Andreasson, however, does not address this issue. In fact, Andreasson does not even identify the issue of false trips or the benefit of avoiding them. The main reason to configure a woodworking machine as set forth in claims 17 or 19 is to provide protection to a user of the machine while the blade or working portion is coasting down after the motor has been turned off. Often the blade or working portion will have sufficient momentum to continue spinning several seconds after the motor has been turned off, and a person could be severely injured by contacting the blade or working portion during that time. Configuring the reaction system to take some action or having the control system trigger a brake during that period of time increases the protection afforded to the user. Andreasson does not address this issue. To the contrary, the system disclosed in Andreasson will not energize its brake actuator after the motor has coasted down below the predetermined rpm, and the system cannot actuate the brake to stop the cutting chain if the actuator is not energized. Thus,

Andreasson fails to teach or suggest any reason to configure a woodworking machine as specified in the pending claims.

In light of the amendments and remarks set forth herein, pending claims 1, 8-11 and 16-23 all distinguish and are not obvious in light of Andreasson. Therefore, applicant requests that the pending claims be allowed. Please telephone the undersigned with any questions.

Respectfully submitted,

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Attachment 1

Title	Serial No./ Publication No.	Filing Date/ Publication Date
Detection System For Power Equipment	09/929,426 2002-0017176-A1	August 13, 2001 February 14, 2002
Contact Detection System For Power Equipment	60/225,200	August 14, 2000
Apparatus And Method For Detecting Dangerous Conditions In Power Equipment	09/929,221 2002-0017336-A1	August 13, 2001 February 14, 2002
Apparatus And Method For Detecting Dangerous Conditions In Power Equipment	60/225,211	August 14, 2000
Firing Subsystem For Use In A Fast-Acting Safety System	09/929,240 2002-0020263-A1	August 13, 2001 February 21, 2002
Firing Subsystem For Use In A Fast-Acting Safety System	60/225,056	August 14, 2000
Spring-Biased Brake Mechanism For Power Equipment	09/929,227 2002-0020271-A1	August 13, 2001 February 21, 2002
Spring-Biased Brake Mechanism For Power Equipment	60/225,170	August 14, 2000
Brake Mechanism For Power Equipment	09/929,241 2002-0017180-A1	August 13, 2001 February 14, 2002
Brake Mechanism For Power Equipment	60/225,169	August 14, 2000
Retraction System For Use In Power Equipment	09/929,242 2002-0017181-A1	August 13, 2001 February 14, 2002
Retraction System For Use In Power Equipment	60/225,089	August 14, 2000
Replaceable Brake Mechanism For Power Equipment	09/929,236 2002-0020261-A1	August 13, 2001 February 21, 2002
Replaceable Brake Mechanism For Power Equipment	60/225,201	August 14, 2000
Brake Positioning System	09/929,244 2002-0017182-A1	August 13, 2001 February 14, 2002
Brake Positioning System	60/225,212	August 14, 2000
Logic Control For Fast-Acting Safety System	09/929,237 2002-0020262-A1	August 13, 2001 February 21, 2002

Title	Serial No./ Publication No.	Filing Date/ Publication Date
Logic Control For Fast-Acting Safety System	60/225,059	August 14, 2000
Motion Detecting System For Use In A Safety System For Power Equipment	09/929,234 2002-0017178-A1	August 13, 2001 February 14, 2002
Motion Detecting System For Use In A Safety System For Power Equipment	60/225,094	August 14, 2000
Translation Stop For Use In Power Equipment	09/929,425 2002-0017175-A1	August 13, 2001 February 14, 2002
Translation Stop For Use In Power Equipment	60/225,210	August 14, 2000
Translation Stop For Use In Power Equipment	60/233,459	September 18, 2000
Cutting Tool Safety System	09/929,226 2002-0017183-A1	August 13, 2001 February 14, 2002
Cutting Tool Safety System	60/225,206	August 14, 2000
Table Saw With Improved Safety System	09/929,235 2002-0017184-A1	August 13, 2001 February 14, 2002
Table Saw With Improved Safety System	60/225,058	August 14, 2000
Miter Saw With Improved Safety System	09/929,238 2002-0017179-A1	August 13, 2001 February 14, 2002
Miter Saw With Improved Safety System	60/225,057	August 14, 2000
Fast Acting Safety Stop	60/157,340	October 1, 1999
Safety Systems For Power Equipment	09/676,190	September 29, 2000
Fast-Acting Safety Stop (Taiwan)	143466	February 25, 2002
Fast-Acting Safety Stop	60/182,866	February 16, 2000
Safety Systems for Power Equipment (PCT)	PCT/US00/26812	September 29, 2000
Miter Saw With Improved Safety System	10/052,806 2002-0059855-A1	January 16, 2002 May 23, 2002
Miter Saw With Improved Safety System	60/270,942	February 22, 2001
Contact Detection System For Power Equipment	10/053,390 2002-0069734-A1	January 16, 2002 June 13, 2002
Contact Detection System For Power Equipment	60/270,011	February 20, 2001

Title	Serial No./ Publication No.	Filing Date/ Publication Date
Power Saw With Improved Safety System	10/052,273 2002-0059853-A1	January 16, 2002 May 23, 2002
Power Saw With Improved Safety System	60/270,941	February 22, 2001
Table Saw With Improved Safety System	10/052,705 2002-0056350-A1	January 16, 2002 May 16, 2002
Table Saw With Improved Safety System	60/273,177	March 2, 2001
Miter Saw With Improved Safety System	10/052,274 2002-0059854-A1	January 16, 2002 May 23, 2002
Miter Saw With Improved Safety System	60/273,178	March 2, 2001
Miter Saw With Improved Safety System	10/050,085 2002-0056349-A1	January 14, 2002 May 16, 2002
Miter Saw With Improved Safety System	60/273,902	March 6, 2001
Miter Saw With Improved Safety System	10/047,066 2002-0056348-A1	January 14, 2002 May 16, 2002
Miter Saw With Improved Safety System	60/275,594	March 13, 2001
Safety Systems For Power Equipment	60/275,595	March 13, 2001
Miter Saw With Improved Safety System	10/051,782 2002-0066346-A1	January 15, 2002 June 6, 2002
Miter Saw With Improved Safety System	60/279,313	March 27, 2001
Safety Systems for Power Equipment	10/100,211 2002-0170399-A1	March 13, 2002 November 21, 2002
Safety Systems For Power Equipment	60/275,583	March 13, 2001
Router With Improved Safety System	10/197,975 2003-0015253-A1	July 18, 2002 January 23, 2003
Router With Improved Safety System	60/306,202	July 18, 2001
Translation Stop For Use In Power Equipment	09/955,418 2002-0020265-A1	September 17, 2001 February 21, 2002
Translation Stop For Use In Power Equipment	60/292,081	May 17, 2001
Band Saw With Improved Safety System	10/146,527 2002-0170400-A1	May 15, 2002 November 21, 2002
Band Saw With Improved Safety System	60/292,100	May 17, 2001

Title	Serial No./ Publication No.	Filing Date/ Publication Date
Apparatus And Method For Detecting Dangerous Conditions In Power Equipment	10/172,553 2002-0190581-A1	June 13, 2002 December 19, 2002
Apparatus And Method For Detecting Dangerous Conditions In Power Equipment	60/298,207	June 13, 2001
Discrete Proximity Detection System	10/189,031 2003-0002942-A1	July 2, 2002 January 2, 2003
Discrete Proximity Detection System	60/302,937	July 2, 2001
Actuators for Use in Fast-Acting Safety Systems	10/189,027 2003-0005588-A1	July 2, 2002 January 9, 2003
Actuators For Use In Fast-Acting Safety Systems	60/302,916	July 3, 2001
Actuators For Use In Fast-Acting Safety Systems	10/205,164 2003-0020336-A1	July 25, 2002 January 30, 2003
Actuators For Use In Fast-Acting Safety Systems	60/307,758	July 25, 2001
Safety Systems for Power Equipment	10/215,929 2003-0037651	August 9, 2002 February 27, 2003
Safety Systems For Power Equipment	60/312,141	August 13, 2001
Safety Systems For Band Saws	10/202,928 2003-0019341-A1	July 25, 2002 January 30,2003
Safety Systems For Band Saws	60/308,492	July 27, 2001
Router With Improved Safety System	10/251,576 2003-0056853-A1	September 20, 2002 March 27, 2003
Router With Improved Safety System	60/323,975	September 21, 2001
Logic Control With Test Mode For Fast-Acting Safety System	10/243,042 2003-0058121-A1	September 13, 2002 March 27, 2003
Logic Control With Test Mode For Fast-Acting Safety System	60/324,729	September 24, 2001
Detection System for Power Equipment	10/292,607 2003-0090224-A1	November 12, 2002 May 15, 2003
Detection System For Power Equipment	60/335,970	November 13, 2001
Apparatus and Method for Detecting Dangerous Conditions in Power Equipment	10/345,630 2003-0131703-A1	January 15, 2003 July 17, 2003

Title	Serial No./ Publication No.	Filing Date/ Publication Date
Safety Systems For Power Equipment	60/349,989	January 16, 2002
Brake Pawls for Power Equipment	10/341,260 2003-0140749-A1	January 13, 2003 July 31, 2003
Brake Pawls For Power Equipment	60/351,797	January 25, 2002
Miter Saw With Improved Safety System	10/643,296	August 18, 2003
Miter Saw With Improved Safety System	60/406,138	August 27, 2002
Retraction System And Motor Position For Use With Safety Systems For Power Equipment	60/452,159	March 5, 2003
Table Saws With Safety Systems And Blade Retraction	60/496,550	August 20, 2003
Brake Cartridges For Power Equipment	60/496,574	August 20, 2003
Switch Box For Power Tools With Safety Systems	60/533,598	December 31, 2003
Motion Detection System For Use In A Safety System for Power Equipment	60/496,568	August 20, 2003
Improved Detection Systems For Power Equipment	60/533,791	December 31, 2003
Improved Fence For Table Saws	60/533,852	December 31, 2003
Improved Table Saws With Safety Systems	60/533,811	December 31, 2003
Brake Cartridges And Mounting Systems For Brake Cartridges	60/533,575	December 31, 2003
Improved Table Saws With Safety Systems and Systems to Mount and Index Attachments		January 29, 2004

CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence and its accompanying attachment are being facsimile transmitted to the U.S. Patent and Trademark Office, Attention: Examiner Boyer D. Ashley, Group Art Unit 3724, to facsimile number: (703) 872-9306 on February 5, 2004.

David Fanning
Date of Signature: February 5, 2004